

cohort of 1553 patients was identified (females = 58%). The mean age was 43 years (range: <1–94 years). A total of 2459 encounters were identified during one year (mean encounters per patient = 1.6, range: 1–18) and 12% of patients used more than one location of care. Hospitalizations were 78%, ED visits were 18%, and OU stays were 4% of all encounters. On average, an inpatient stay was 5.6 days at a cost of \$8354. Mean ED visit was five hours (average cost of \$838). Mean OU stay was 28 hours (average cost of \$2457). Cumulative cost for all inpatient, ED and OU encounters for these patients for one year was roughly \$17.3 million and this is a conservative estimate of management costs, as it does not include physician, post-acute or usual outpatient care costs. **CONCLUSIONS:** These results show that managing this disorder requires use of resource intensive settings at a substantial cost and provide key information for health economic analyses of Crohn's disease.

PGI8

EVALUATION OF OTC PRILOSEC STEP CARE PROGRAMS ON THE UTILIZATION AND COSTS OF PROTON PUMP INHIBITORS

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OBJECTIVES: To evaluate OTC Prilosec Step Care programs on the utilization and costs of Proton Pump Inhibitors (PPI) in a large pharmacy benefit management setting. **METHODS:** Using pre-post with control group study design, prescription records from January 1, 2003 to October 31, 2004 were obtained from pharmacy claims database in a large pharmacy benefit management organization. Clients were assigned to one of the four cohorts—formulary changes and step care, step care only, formulary change only, no formulary change and no step care (serves as the control group). The number of prescriptions dispensed and the total costs per member per month (PMPM) were analyzed and compared among the groups. **RESULTS:** From the pre to post period, in the cohort with formulary change and step care, the average number of prescriptions per month decreased by 50.2% and the average PMPM costs decreased by 55.8% (from \$3.44 to \$1.52). In the step care only cohort, the number of prescriptions decreased by 34% and the average PMPM costs decreased by 25.4% (from \$4.2 to \$3.13). In the formulary change only cohort, the number of prescriptions decreased by 12% and the average PMPM costs decreased by 22.7% (from \$3.38 to \$2.61). In the control group, the number of prescriptions decreased by 18.9%, while the average PMPM costs increased by 3.3% (from \$4.06 to \$4.19). OTC Prilosec Step Care programs resulted in PMPM and total annualized cost savings, \$2.03 and \$4,727,058 for the cohort with formulary change and step care, \$1.21 and \$757,915 for the cohort with step care only, \$0.88 and \$1,230,662 for the cohort with formulary change only. **CONCLUSIONS:** OTC Prilosec Step Care programs were found to be very effective in controlling the utilization and expenditures on PPIs.

PGI9

MODELING RISK OF GI EVENTS AMONG MEDICAID NSAID USERS, USING PROPENSITY SCORES

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OBJECTIVES: The differential effects of non specific non-steroidal anti-inflammatory agents (NSAIDs) compared with cyclooxygenase-2 inhibitors (COX-2) on gastrointestinal (GI) side effects have led to the preference of COX-2s over NSAIDs. The purpose of this study is to evaluate the gastrointestinal risk

of NSAIDs compared with COX-2 inhibitors in a Medicaid managed care population. **METHODS:** Medical and prescription claims were analyzed for all Medicaid enrollees, 18 and older, who received a COX-2 or other prescription NSAID between June, 2000 and June, 2002 and who did not use these drugs for at least six months prior. These Medicaid plans have prior authorization conditions. A logistic model was developed of the propensity for treatment with NSAIDs and stratified patients by quintiles of their propensity score. The propensity that a given patient will be assigned an NSAID or a COX-2 was then assessed. Patients might have similar propensity scores but in fact receive different treatments, hence grouping people with similar scores can provide a basis to observe the treatment effect in patients with similar risk profiles. The model adjusted for demographics, indications for NSAIDs and GI risks. We compared GI event (ICD-9 codes 531–534, 578) rates between NSAID and COX-2 users. **RESULTS:** Out of a total of 64,053 patients (including 574 COX-2 users), 73% were female, 43% Caucasian, and 29% older than 50. In the propensity adjusted model, there was no significantly higher rate of GI events in NSAID users as compared to COX-2 users (OR = 0.738, 95% CI 0.486, 1.121). **CONCLUSIONS:** We did not find a significant difference in the GI event rates among patients in this Medicaid population who are started on NSAIDs vs. COX-2 inhibitors. In their decisions, managed care plans might consider possible selection bias, due to prior authorization, and not captured by the propensity adjustment.

PGII0

IS THE INTRODUCTION OF REFERENCE BASED PRICING FOR PATENT PROTECTED DRUGS A COST-SAVING OPTION FOR HEALTH CARE?

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OBJECTIVE: In 1989, Germany was first country to introduce reference based pricing (RBP) to cap drug costs. Initially RBP was only applicable to identical ingredients. In 1992 and 1993, RBP was extended to chemically similar drugs of the same indication. In 2004, the German government seeks to extend RBP to patent-protected drugs. With that measure the government expects major cost-savings. Taking PPI (protonpumpinhibitors) in the treatment of GERD (gastroesophageal reflux disease) as an example we demonstrate that the expected savings are not going to be realized. **METHODS:** A markov model was constructed to evaluate the effect of RBP on the clinical outcomes and costs in the maintenance therapy of GERD. It is assumed that payments by the patients in case of a drug price above the reference price have an effect of on the continuation of the therapy. Refusal of payments by the patient can lead to a change or discontinuation of the initially chosen therapy. **RESULTS:** Due to changes in treatment patterns and the more frequent use of less effective PPI, only 18% of the expected savings are realized. Hence the likelihood of remission per year decrease from 79% to 73% and 6% more hospital admissions are to be expected. **CONCLUSIONS:** Only a fraction of the expected costs are going to be realized, while the overall effectiveness decreases substantially. The inclusion of patented drugs in reference price schemes should be assessed individually.

PGII1

LINKING SYMPTOMS SEVERITY AND DIURNALITY TO PRODUCTIVITY LOSS—A NEW CONCEPTUAL APPROACH

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